Proposal Full View

Print

Applicant Information

Organization Name	Deer Creek & Tule River Authority *
Tax ID	**931137217**
Proposal Name	DCTRA Remote Sensing and Water Balance Analysis *
Proposal Objective	Develop a calibrated model combining remote sensing with daily root zone water balance simulation at the field scale to provide estimates of crop evapotranspirtation of applied water for the period of 2007 - 2011. This model can then be used with satellite imagery on a quarterly basis to estimate basin water demands, which can be used to determine the net basin water usage per year. *

Budget

Other Contribution	$0.00
Local Contribution	$0.00
Federal Contribution	$0.00
Inkind Contribution	$0.00
Amount Requested	$83,399.00 *
Total Project Cost	$83,399.00 *

Geographic Information

Latitude *	DD(+/-) 36	MM 3	SS 54
Longitude *	DD(+/-) 119	MM 18	SS 38

Longitude/Latitude Clarification	Covers Entire Basin	Location	Southeast Portion of Tulare County, CA
County		Tulare *	
Ground Water Basin		San Joaquin Valley-Tule	
Hydrologic Region		Tulare Lake	
Watershed	Southern Sierra (Tule River & Deer Creek)		

Legislative Information

Assembly District	30th Assembly District *
Senate District	16th Senate District *
US Congressional District	District 21 (CA) *

Project Information

Project Name: Remote Sensing and Water

Implementing Organization	Deer Creek & Tule River Authority
Secondary Implementing Organization	
Proposed Start Date	4/1/2013
Proposed End Date	11/11/2013
Project Scope	Develop a Remote Sensing and Water Balance Analysis Model using Evapotranpiration, aerial imagery, and NDVI values
Project Description	This project is describes as a methodology combining remote sensing of crop transpiration with application of a daily root zone water balance model to simulate evaporation and irrigation processes at the individual field scale. Results of the analysis can then be aggregated to various scales (e.g., section, township, irrigation district, groundwater model cell, subbasin) to estimate fluxes and changes in root zone storage and groundwater storage over time, including: • Crop Evapotranspiration (ET) o ET from applied irrigation water o ET from precipitation • Applied Irrigation Water (AW) • Precipitation • Runoff o Runoff of precipitation o Tailwater runoff from irrigation • Deep Percolation o Deep percolation of applied water o Deep percolation of precipitation • Change in Soil Moisture Storage o Storage of Applied Water o Storage of Precipitation
Project Objective	As part of reporting requirements to the State, the Authority is interested in improving estimates of net extraction of groundwater within its member districts. Net extraction consists of total groundwater pumping for irrigation, minus deep percolation of groundwater applied for irrigation purposes. Challenges to existing methods to estimate net extraction include quantifying the effects of changes in irrigated acreage, cropping, and crop timing over time.

Project Benefits Information

Project Benefit Type	Benefit Type	Measurement	Description
Primary	Other-Water Studies	0	Create Model to determine Water usage

Project Objective

Budget

Other Contribution	0
Local Contribution	0
Federal Contribution	0
Inkind Contribution	0
Amount Requested	83399
Total Project Cost	83399

Geographic Information

Latitude DD(+/-)	36	MM	3	SS	54
Longitude DD(+/-)	119	MM	18	SS	38

Longitude/Latitude Clarification: Covers Entii Location: Southeast Portion of County Tulare Ground Water Basin San Joaquin Valley-Tule Hydrologic Region Tulare Lake WaterShed Southern Sierra (Tule River & Deer Creek)

Legislative Information

Assembly District	30th Assembly District
Senate District	16th Senate District
US Congressional District	District 21 (CA)

Section : Applicant Information and Question's Tab

APPLICANT INFORMATION AND QUESTION'S TAB

Q1. Applicant Information

Provide the agency name, address, city, state, and zip code of the applicant submitting the application.

Deer Creek & Tule River Authority 357 E. Olive Ave. Tipton, CA 93272 Phone: (559)686-4716 Fax: (559)686-0151

Q2. Proposal Description:

Provide a brief abstract of the Proposal. This abstract must provide an overview of the proposal including the main issues and priorities addressed in the proposal. Within the abstract, please describe how the proposal relates to the GWMP's BMO's.

As part of reporting requirements to the State, the Authority is interested in improving estimates of net extraction of groundwater within its member districts. Net extraction consists of total groundwater pumping for irrigation, minus deep percolation of groundwater applied for irrigation purposes. Challenges to existing methods to estimate net extraction include quantifying the effects of changes in irrigated acreage, cropping, and crop timing over time. This project includes developing a methodology combining remote sensing of crop transpiration with application of a daily root zone water balance model to simulate evaporation and irrigation processes at the individual field scale. Results of the analysis can then be aggregated to various scales (e.g., section, township, irrigation district, groundwater model cell, subbasin) to estimate fluxes and changes in root zone storage and groundwater storage over time

Q3. Project Director:

Provide the name and details (including email) of the person responsible for executing the grant agreement for the applicant. Persons that are subcontractors to be paid by the grant cannot be listed as the Project Director.

Dan Vink 357 E. Olive Ave. Tipton, CA 93272 Phone: (559)686-4716 Fax: (559)686-0151 Email: dvink@ltrid.org

Q4. Project Manager:

Provide the name and contact information (including email) of the Project Manager from the applicant agency or organization that will be the day-to-day contact on this application.

David De Groot, PE 4-Creeks Engineering Inc 2929 W. Main Street, Suite A Visalia, CA 93291 Phone: (559)802-3052 Fax: (559)802-3215 Email: davidd@4-creeks.com

Q5. Additional Information:

Based on the region's location, what is the applicable DWR region office (Northern, North Central, South Central, or Southern)? The following link can be used to view each DWR region office boundaries:

http://www.water.ca.gov/groundwater/groundwater_basics/gw_contacts_info.cfm

1) ☐ Northern Region
2) ☐ North Central Region
3) ☑ South Central Region
4) ☐ Southern Region

Q6. Additional Information:

other legal Authority in which it was adopted.

The member agencies of the Deer Creek and Tule River Authority (Authority) implemented a Groundwater Management Plan to collectively monitor, manage, and implement groundwater activities by the member participants of the DCTRA. The original Groundwater Management Plan was adopted by the DCTRA Board on March 24, 1995. This Plan was then updated in July 2006 and the last update was on 18 May 2012. The latest update provided a list of updated basin objectives and goals.

Q7. Additional Information:

Provide a list of documents that support and indicate collaboration with other local public agencies with regard to the management of the affected groundwater basin (e.g., MOUs, MOAs, JPAs, adoption of a GWMP, recognition of county ordinances in permitting processes, or party to a groundwater basin adjudication order).

The Authority was formed through a Joint Powers Agreement on 25 February 1994. The Authority was formed by Agreement to the provisions of the JPA Act and shall be a public entity separate from the members. The purpose of the Authority is to facilitate more efficient operations and management of the member districts? through conjunctive management of the members? surface and groundwater supplies. Member Districts of the Authority include Lower Tule River Irrigation District, Pixley Irrigation District, Porterville Irrigation District, Saucelito Irrigation District, Stone Corral Water District, Terra Bella Irrigation District, Tea Pot Dome Irrigation District, and Vandalia Irrigation District, all located in Tulare County, California. The document that supports collaboration with other agencies is: Joint Powers Agreement - Deer Creek and Tule River Authority

Q8. Additional Information

Name the entity(ies) providing the fund(s) reported in the above Budget section under the category "Other Contribution". If there are no “Other Contributions” Please answer this question with, “No Other Contributions”.

No Other Contributions

Q9. Eligibility:

List the urban water suppliers that will receive funding from the proposed grant. Please provide the agency name, a contact phone number and email address. Those listed must submit self certification of compliance with CWC §525 et seq. and AB1420, see Attachment 10. If there are none, so indicate.

None

Q10. Eligibility:

Have all of the urban water suppliers, listed in Q9 above, submitted complete 2010 UWMP to DWR? If not, explain why. Have those plans been verified as complete by DWR? If not, explain current status.

None

Q11. Completeness Check:

Have all of the fields in the application been completed?

Yes

Q.11. Completeness Check (cont)

If no, please explain. If yes, answer this question with "NA".

NA

Section : Application Attachments Tab

APPLICATION ATTACHMENTS TAB

Attachment 1. Authorizing Documentation

Upload authorizing documentation here. Ensure file name is consistent with the LGA Grant PSP, Section II. "How to Submit An Application".

Last Uploaded Attachments: AuthDoc.pdf

Attachment 2. Eligible Applicant Documentation

Upload eligible documentation here. Ensure file name is consistent with the LGA Grant PSP, Section II. "How to Submit An Application".

Last Uploaded Attachments: EligDoc.pdf

Attachment 3. Status of GWMP

Upload the GWMP documentation here. Ensure file name is consistent with the LGA Grant PSP, Section II. "How to Submit An Application".

Last Uploaded Attachments: GWMP.pdf

Attachment 4. Project Description

Upload project description here. Ensure file name is consistent with the LGA Grant PSP, Section II. "How to Submit An Application".

Last Uploaded Attachments: ProjD.pdf

Attachment 5. Work Plan

Upload work plan here. Ensure file name is consistent with the LGA Grant PSP, Section II. "How to Submit An Application".

Last Uploaded Attachments: WrkPln.pdf

Attachment 6. Budget

Upload budget here. Ensure file name is consistent with the LGA Grant PSP, Section II. "How to Submit An Application".

Last Uploaded Attachments: BUDGET.pdf

Attachment 7. Schedule

Upload schedule here. Ensure file name is consistent with the LGA Grant PSP, Section II. "How to Submit An Application".

Last Uploaded Attachments: SCHED.pdf

Attachment 8. Quality Assurance

Upload quality assurance documentation here. Ensure file name is consistent with the LGA Grant PSP, Section II. "How to Submit An Application".

Last Uploaded Attachments: QA.pdf

Attachemnt 9. Past Performance

Upload past performance documentation here. Ensure file name is consistent with the LGA Grant PSP, Section II. "How to Submit An Application".

Last Uploaded Attachments: PERFORM.pdf

Attachment 10. AB1420 and Water Meter Implementation Compliance

Upload 1420 and water meter implementation documentation here, if applicable. Ensure file name is consistent with the LGA Grant PSP, Section II. "How to Submit An Application".

Last Uploaded Attachments: 1420.pdf